

4.9 VISUAL RESOURCES/LIGHT AND GLARE

This Final Environmental Impact Report (EIR) for the Shell Martinez Marine Terminal (Shell Terminal) Lease Consideration Project (Project) evaluates the continued use of the Shell Terminal for an additional 30-year period. Both shorelines in the vicinity of the Shell Terminal are comprised primarily of industrial uses, and visual receptors are limited. Receptors are limited to users of a nearby trail and marina to the west of the Shell property, and to recreational boaters in Suisun Bay that see the Shell Terminal from the water. This section addresses the potential for visual impact to recreational users from continued use of the Shell Terminal and from accidental spill releases.

4.9.1 Environmental Setting

Regional Character of Carquinez Strait and Suisun Bay

Carquinez Strait forms a visually distinct, yet relatively narrow channel that connects San Pablo Bay to Suisun Bay. The approximately 6-mile Strait lies between two major bridges, the Carquinez Bridge, from Crockett to Vallejo, and the Benicia-Martinez Bridge from Benicia to Martinez. Both bridges are visually distinct features in a landscape characterized by gently rolling terrain. To the east, Suisun Bay widens until the City of Pittsburg, where again the shoreline narrows before the waters enter from both the Sacramento and San Joaquin Rivers. Through this area the landscape is a combination of gently rolling and flat expanses of land. The Carquinez Strait and Suisun Bay are characterized by a visual mix of industrial uses, small towns, and open areas of undeveloped land.

The 1,294-acre Carquinez Strait Regional Shoreline includes several parcels of land along the southern shoreline of the Strait. The area is characterized by coastal scrub and grasslands, bay laurels, and oak woodlands. The shoreline's bluffs rise approximately 750 feet to summits and ridges of the rolling terrain.

Located west of the Shell Terminal is the City of Martinez Regional Shoreline, 350-acre waterfront park developed from a former industrial fill. Features include the Martinez Marina and public pier.

Characteristic views of the Strait and Suisun Bay show tugboats pushing barges, directing ships, or moving from job to job in the area. Oil tankers are a common site in the area, with four active terminals located between Crockett and Avon.

Regional, county, and city policies address aesthetic issues in the area. These policies include the general plans of both Contra Costa County and Solano County, and of the cities of Martinez and Benicia. Solano County has designated I-680 as a county scenic roadway from the Benicia-Martinez Bridge north to Cordelia, and the City of Benicia has identified Interstate 680 (I-680) north of the bridge as a scenic route.

1 The Bay Conservation and Development Commission (BCDC) San Francisco Bay Plan
2 contains policies on visual quality and visual access to the waterfront. BCDC also
3 provides design review of new projects that may affect the appearance of the Bay.

4 **Visual Character of the Shell Terminal and Adjacent Area**

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7 The Shell Terminal is located approximately 3,200 feet (0.6 mile) from Marina Vista
8 Road. The Refinery blocks views of the Shell Terminal from the road. The area from
9 I-680 to the Shell Terminal and east is characterized by industrial uses and open space.

10
11 The Martinez Marina and Martinez Regional Shoreline are located west of the Shell
12 Terminal. Users of those areas see views of the Shell Terminal which include
13 background views of the Benicia-Martinez Bridge (I-680) which dominates the
14 background view, as shown in Figure 4.9-1. The dominating feature of the foreground is
15 the Martinez Regional Shoreline marshland, over which Shell's wooden trestle passes
16 as shown in Figure 4.9-2. This marshland includes wetland grasses and low level
17 shrubs, providing a visual "softscape." Focal points that can be defined as the
18 predominant "hardscape" landscape features along the shoreline include the Benicia-
19 Martinez Bridge (I-680), and the Shell Terminal. A few residential receptors are
20 immediately adjacent to the Refinery and are located approximately 3,900 feet to the
21 south from the Shell Terminal wharf. These receptors are located in a non-conforming
22 (Heavy Industrial zoned) area, and have views of the Refinery with the Shell Terminal
23 and Benicia-Martinez Bridge. Those few residents are located on hillsides with
24 unobstructed views. In addition, occasional hikers, water users, and travelers across the
25 Benicia-Martinez Bridge, have views of the Shell Terminal.

26
27 On the northern shore of the Bay are industrial uses including the Valero Benicia
28 Refinery; thus, public views from the north of the Shell Terminal are also limited.

29
30 Other environmentally sensitive areas in the vicinity of the Shell Terminal are identified
31 in Section 4.3, Biological Resources, and Section 4.5, Land Use and Recreation.

32
33 Low-level security lighting is located along the trestle, and higher-intensity lighting for
34 night-time operations is located on the Shell Terminal.

35 **General Visual Characteristics of the Bay Area**

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37
38 San Francisco and San Pablo Bays' shoreline contains a range of visual stimulation
39 consisting mainly of urbanized and industrial areas, with occasional rural and open
40 space areas, coastal wetlands and salt evaporation ponds. The landform throughout
41 most of the area is hilly terrain. Where there is no development, this open area is
42 generally covered with low vegetation.

1 Figure 4.9-1. Shell Marine Terminal from Martinez Marina



2 Figure 4.9-2. View of Marsh from Shell Trestle



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1 The greatest area of urbanization is within the central and south-central portion of
2 San Francisco Bay. From San Francisco south to Palo Alto, urban development is
3 prevalent on the western shoreline. On the eastern shoreline, urban development is
4 continuous from San Leandro to Pinole Point, but from there eastward is fairly
5 undeveloped.

7 San Francisco and San Pablo Bays contain about 90 percent of California's remaining
8 coastal wetlands. Major preserves and shoreline parks include Suisun Bay Marsh, with
9 numerous duck hunting preserves, San Pablo Bay National Wildlife Refuge off of Tubbs
10 Island, which is accessible by boat, and Point Pinole Regional Shoreline. China Camp
11 State Park, along the southwest shore of San Pablo Bay, preserves a historic Chinese
12 shrimp fishing village. Coyote Hills Regional Park and San Francisco Bay National
13 Wildlife Refuge protect important wetland acreage in the South Bay for wintering
14 waterfowl. Many other small parks, piers, and recreational marinas also provide access
15 to the shoreline.

17 The southern portion of the Bay Area contains several large areas of salt evaporation
18 ponds. One is located north of the San Francisco Bay National Wildlife Refuge on the
19 eastern shoreline, and another across the Bay on the western shoreline. Several others
20 are also along the far southern end.

22 Within the Bay Area, there are numerous ports, harbors, marine terminals, and naval
23 terminals. A description and a map of these facilities are presented in Section 4.4,
24 Cumulative Projects. Marine vessel traffic is a common sight throughout the Bay Area.

26 **Outer Coast**

28 Outside of the Golden Gate, one of the more pristine areas is the Farallon Islands,
29 located 27 nautical miles west of Point Bonita in Marin County. The Islands rise from the
30 edge of the continental shelf forming jagged, rocky outcroppings, and are the most
31 important seabird nesting site on the coast. The Gulf of Farallones and the Monterey
32 Bay are Marine Sanctuaries located off the coast and contain protected resources.

34 A large portion of the northern California coast remains representative of the shoreline
35 of years past. Little development has occurred and areas along the northern California
36 coast remain in pristine form. From the Golden Gate north, the shoreline consists of
37 dramatic coastline features including rolling hilly coastal landforms dropping to sandy
38 beaches, jagged rock outcroppings forming hazards to marine vessels in the nearshore,
39 cliffs that drop to the sea, and large, flat beach areas with dunes. Small shoreline
40 communities and picturesque harbor areas also dot the shoreline in some areas.
41 A large number of rivers and creeks cut the coastline, adding visual interest.
42 Established preserve areas are also along the coastline. Vegetation is diverse, ranging
43 from salt marsh vegetation to douglas fir and redwood forests.

45 The southern California coastline from Santa Barbara south ranges from undeveloped
46 stretches (southern Orange County/northern San Diego County), to intense

development (San Diego, Orange and Los Angeles counties), to lesser intense development, but still much urbanization toward Santa Barbara.

Additional details of the resources of the outer coast are presented in the Unocal Marine Terminal EIR (Chambers Group 1994) and the Gaviota Marine Terminal EIR (Aspen Environmental Group 1992).

4.9.2 Regulatory Setting

The Shell Terminal and Refinery are located within the City of Martinez. The most applicable land planning guidance is from the City of Martinez and Contra Costa County. The City of Martinez's General Plan contains policies addressing the protection of the natural character of the hills and ridges; the protection of vista points and their inclusion into a trail system, scenic parkway, or park; and provision of overlooks.

As presented in the Land Use and Recreation Section 4.5.2, Regulatory Setting, the goal of the Bay Trail Plan is to provide a shoreline trail around San Francisco Bay. Portions of such a trail exist near the Shell Terminal through the Martinez Regional Shoreline. The East Bay Regional Park District (EBRPD), the BCDC, and the City of Martinez all work together to promote the shoreline trail concept and to open up vistas to the public.

4.9.3 Impact Significance Criteria

Visual impacts are considered adverse and significant if one or a combination of the following apply:

- Routine operations and maintenance visually contrast with or degrade the character of the viewshed;
- Actions result in changes in expectations of viewers resulting in a negative impression of the viewshed; and/or
- Night lighting would result in glare conditions affecting nearby residences.

Because of the time factor involved in oil dispersion, visual impacts from spills are considered to be significant adverse (Class I) impacts if first response efforts would not contain or cleanup the spill, resulting in residual impacts that would be visual-visible to the general public on shoreline or water areas. If a spill occurs that would be contained and cleaned during the first response, that spill would be considered a significant adverse (Class II) impact to visual resources.

4.9.4 Impacts Analysis and Mitigation Measures

4.9.4.1 Shell Terminal Routine Operations and Potential for Accident Conditions

Impact VR-1: Visual Effects from Routine Operations Over the 30-Year Lease Period

Over the lease period, tankers would be berthed at the Shell Terminal in a manner consistent with existing conditions. Over the lease period, there could be additional berthings if Berths #3 and #4 are dredged and used for barges. However, as the primary view is from the Martinez Marina and Martinez Regional Shoreline, visual ~~affects~~effects would remain similar to present conditions, and impacts are considered adverse, but less than significant (Class III). The Shell Terminal cannot be seen from Vista Marina Road, as views are obstructed by the Refinery. Visual impacts or night lighting impacts associated with continued operations are adverse, but less than significant (Class III).

The Shell Terminal has been in place ~~for a long time~~ since 1915, and the proposed Project site is industrial in character. The only possible change over the lease period would be use of Berths #3 and #4 to serve barges and an increase in overall berthing activity due to an increase in number of annual vessel calls. The berthing of ships at the Shell Terminal cannot be seen from Vista Marina Street, as views are obstructed by the Refinery and the Shell ~~t~~Terminal is distant. The few residential receptors would also see the Shell Terminal in the distance at approximately 3,900 feet away. Viewers along the local trail and from boats have more direct views of the vessels. Still, due to Shell Terminal capacity, only two vessels at a time would continue to be berthed at the outer portion of the Shell Terminal, ~~with two barges able to moor in the inner two berths~~. From the water-side, ships berthed at the Shell Terminal would appear as a use consistent with the existing operations. Therefore, Project operations would not significantly change the visual character or compatibility, and impacts are considered adverse, but less than significant (Class III).

Vessels currently transit near the Shell Terminal in the shipping lane. Therefore, continued transit operations would result in adverse, but less than significant impacts (Class III) to the visual environment.

Night lighting for operations includes lights at the T-head portion of the structure to support loading/unloading activities. These lights point toward the loading/unloading activity, and, as there are no sensitive receptors in the area, there are no impacts from lighting or glare. Night lighting impacts are considered adverse, but less than significant.

Vessel transiting to the Shell Terminal in the Bay transit lanes and along the Bay outer coast would continue to blend in with other accepted tankering operations. No new visual elements would be added and public sensitivity toward views would not change. Impacts are adverse, but less than significant (Class III).

VR-1: No mitigation is required.

Impact VR-2: Visual Effects from Accidental Releases of Oil At or Near the Terminal

The visual impacts of a spill could last for a long period of time, depending on the level of physical impact and cleanup ability, and are considered to be adverse and significant (Class I or II).

This analysis considers the occurrence of accidental spills separate from routine operations. In general, the potential impacts resulting from such an occurrence would tend to degrade the visual quality of the water and shoreline. The degree of impact is influenced by factors not limited to location, spill size, type of material spilled, prevailing wind and current conditions, the vulnerability and sensitivity of the shoreline, and effectiveness of early containment and cleanup efforts.

The greatest risk of a spill is from small accidents at the Shell Terminal during normal operations. While there is less risk of spill during tankering, the size of a spill that could result is much greater, as discussed in Section 4.1.4, Impacts Analysis and Mitigation Measures. The following discusses the visual impacts expected to occur in the event of a spill.

Generally, small leaks and spills (50 to 100 barrels [bbls]) would be easily contained with contingency measures employed at the Shell Terminal. However, the Shell Terminal is located in an area of rapidly moving current. Thus, if a spill is not detected immediately, or if a moderate- or large-sized spill at or near the Shell Terminal occurred at a rate unable to be quickly contained due to the rapid current, then the spill could spread over a large area. Oil spill modeling (Chambers Group 1994, Wickland 1998) shows that spills originating in the vicinity of the Shell Terminal have the potential to affect a good portion of the area from West Pittsburg (near the mouth of the Delta) to the west shore of San Pablo Bay.

Visually, oiling conditions could range from light oiling, which appears as a surface sheen, to heavy oiling, including floating lumps of tar. Light product spills generally volatilize relatively rapidly, and little remains within 24 to 48 hours after a spill. Heavy crude oil may disappear over a period of several days, with remaining heavy fractions lasting from several weeks to several months floating at or near the surface in the form of mousse, tarballs, or mats. Therefore, the presence of oil on the water would change the color and, in heavier oiling, textural appearance of the water surface. Oil on shoreline surfaces or nearshore marsh areas would cover these surfaces with a brownish-blackish, gooey substance.

Such oiling would result in a negative impression of the viewshed. The public, becoming aware of a spill, may react negatively to its visual effects. Sensitivity heightens and awareness of the negative change in the environment increases.

Without rapid containment by immediate booming and cleanup, the visual effects of even a small spill of 50 bbls can leave residual impacts, and they can be significant (Class I).

In the immediate area of the Shell Terminal are Martinez Marsh and Martinez Regional Shoreline. As per the Office of Spill Prevention and Response (OSPR) Area Contingency Plan, protection of this area is a high priority. The Plan proposes a protection strategy that includes booming. This is discussed in more detail in Section 4.3, Biological Resources.

The impact of a spill on a sensitive area could last for a long period of time, depending on the level of physical impact and cleanup ability. In events where light oiling would disperse rapidly, significant adverse (Class II) impacts are expected. In events where medium to heavy oiling occurs over a widespread area, and where first response containment and cleanup efforts are not effective, leaving residual effects of oiling, significant adverse (Class I) impacts would be expected. The physical effort involved in cleanup itself, including the equipment used, would contribute to a negative impression of the environment and the visual impact. It is impossible to predict with any certainty the potential consequences of spills; therefore, visual impacts can be considered to be adverse and significant (Class I or II), depending on the effectiveness of first response containment and cleanup.

Mitigation Measures for VR-2:

VR-2. Mitigation ~~m~~Measures (MM) for oil spill impacts include those measures for contingency planning and response as presented in Operational Safety/Risk of Accidents and Biological Resources.

Rationale for Mitigation: Those measures presented in other sections provide improved oil spill capabilities, oil spill containment measures and protection of resources. With implementation of those measures the risk to the visual environment can be reduced to less than significant for small spills.

Residual Impacts: Even with implementation of mitigation for oil spill impacts, visual resources may be impacted from large spills and impacts would remain significant (Class I).

4.9.4.2 Oil Spills From Vessels in Transit in Bay or Along Outer Coast

Impact VR-3: Visual Effects of Oil Spills from Vessels in Transit

Spills would change the color and texture of water and shoreline conditions. The level of public sensitivity and expectations of viewers would result in a negative impression of the viewshed and result in significant adverse (Class I or II) impacts, depending on the various characteristics of a spill and its residual effects.

Vessels transiting the shipping lanes also pose a risk of spills from accidents. A moderate to large spill has the potential to spread within a large area, with floating oil and oil contacting sensitive shoreline resources given the right wind and current conditions, and the size and origin of the spill. For example, oil spill modeling from the Unocal EIR (Chambers Group 1994) showed that if a large spill (100,000 bbls) were to occur in the shipping lanes near Alcatraz Island, oil could spread and beach at almost all shoreline points within the Central Bay and San Pablo Bay areas, as well as affect portions of the South Bay and Carquinez Strait (Bay Scenarios No. 9 and No. 10, 100,000-bbl crude oil spills from Unocal document). While spills would be significant, responsibility for spills for those vessels enroute to the Shell Terminal would be the responsibility of the ship's operators/owners and not Shell, as Shell does not own any vessels. Response capability is analyzed in Section 4.1, Operational Safety/Risk of Accidents.

Spills along the outer coast could result in significant adverse (Class I or II) impacts, where spills would be visible in the nearshore zone or at the shoreline. Spills would change the color and texture of water and shoreline conditions. The level of public sensitivity and expectations of views along the outer coast are more varied than within the Bay. Along many portions of the outer coast, public usage is low. In such areas, the public perception and expectations of viewers would not change as much as those areas where the public frequents. In high use areas, such as coastal park and beach areas, ecological preserve areas, communities and harbors, and other areas where a higher number of viewers would be present, visual sensitivity would be high where cleanup efforts and residual effects were occurring.

It is impossible to predict with any certainty the potential consequences of spills; therefore, visual impacts can be considered to be adverse and significant (Class I or II), depending on the effectiveness of first response containment and cleanup. Response capability for spills from any ships in transit would defer to Marine Spill Response Corporation, as described in Sections 2.0, Project Description and 4.1, Operational Safety/Risk of Accidents.

Mitigation Measures for VR-3:

VR-3. ~~Mitigation measures for accidents in the shipping lanes would not be Shell's responsibility, but would fall to the vessel operator/owner.~~ Shell shall implement MM OS-7a and OS-7b in Operational Safety/Risk of Accidents.

Rationale for Mitigation: ~~Response capability for containment and cleanup is not the responsibility of Shell for spills in the shipping lanes. However, Shell's participation in U.S. Coast Guard (USCG)-sponsored Port and Waterways Safety Assessment (PAWSA) workshops VTS upgrade evaluations, and Shell's response actions for spills near the Shell Terminal help to reduce potential impacts to shoreline and recreational areas. Impacts to these areas near the Shell Terminal may be able to be reduced to less than significant.~~

Residual Impacts: Even with implementation of mitigation for oil spill impacts, land- and water-related recreational impacts would potentially remain significant-(Class I).

4.9.5 Impacts of Alternatives

Impact VR-4: No Project Alternative

The removal of the Shell Terminal would have a slight beneficial (Class IV) impact in the Carquinez Strait. Risks from spills to visual resources could be transferred to the other marine terminals that would have increased vessels activities. Spills from those facilities could result in significant adverse visual impacts. Shell has no responsibility for those facilities.

Under the No Project Alternative, Shell's lease would not be renewed and the existing Shell Terminal would be subsequently decommissioned with its components abandoned in place, removed, or a combination thereof. The decommissioning of the Shell Terminal would follow an Abandonment and Restoration Plan as described in Section 3.3.1, No Project Alternative.

Under the No Project Alternative, alternative means of crude oil/product transportation would need to be in place prior to decommissioning of the Shell Terminal, or the operation of the Shell Refinery would cease production, at least temporarily. It is more likely, however, that under the No Project Alternative, Shell would pursue alternative means of traditional crude oil transportation, such as a pipeline transportation, or use of a different marine terminal. Accordingly, this ~~Draft~~-EIR describes and analyzes the potential environmental impacts of these alternatives. For the purposes of this ~~Draft~~-EIR, it has been assumed that the No Project Alternative would result in a decommissioning schedule that would consider implementation of one of the described transportation alternatives. Any future crude oil or product transportation alternative would be the subject of a subsequent application to the California State Lands Commission (CSLC) and other agencies having jurisdiction, depending on the proposed alternative.

During dismantling or decommissioning, it is likely that heavy equipment, including a barge, crane, and land trucking would likely be used short-term in the decommissioning effort. No significant adverse visual impacts would be anticipated with the decommissioning process.

With removal of Shell Terminal from the shoreline, though still within an industrial section of shoreline, a slight beneficial (Class IV) change in visual conditions in the immediate area may occur to the most proximate receptors at the Martinez Marina and Martinez Regional Shoreline.

The No Project Alternative assumes the number of tankers servicing the area would remain essentially the same due to regional demands, and assumes that, with the unavailability of the Shell Terminal, incoming tankers would instead go to other nearby terminals. Therefore, the risks associated with the transport of oil would not be

removed, but simply shifted to other nearby facilities. The localized risk of spill (i.e., risks associated with the specific location and access route to the Shell Terminal impacting shoreline land uses and precluding recreational uses) would shift. Impacts at the Shell Terminal would not occur and a slight beneficial impact (Class IV) could occur. However, an incremental increase in risk associated with increases in vessel activity at other nearby terminals would result. At those facilities there would be the potential for spill impacts similar to the proposed Project.

The No Project Alternative assumes that other facilities in the area would have the capability to make up for the loss of the Shell Terminal. However, if other facilities do not have this capability, they may be required to expand. While this document does not examine the potential impacts of an expansion of other facilities, because the possibility of such an action is too speculative at this time, expansion of existing facilities would not likely result in significant adverse visual impacts. Any such expansion activities likely would trigger environmental review at the time of a proposal to expand any of the facilities in the area.

VR-4: No mitigation is required.

Impact VR-5: Full Throughput Alternative

One or more existing terminals would operate simultaneously with no adverse impacts. However, the alternative would require new pipelines, the construction of which could result in significant (Class I or II) impacts.

Use of existing marine oil terminals, even with minor modifications would result in minor visual changes to the Bay area. Any terminal modifications would be expected to be adverse, but less than significant (Class III). A beneficial (Class IV) impact would occur along the shore of the Shell Refinery, with the removal of the Shell Terminal as discussed in Impact VR-4.

Temporary visual effects would occur within areas of pipeline construction. The Shell existing pipeline would require connections to the terminals and or other connecting (new or existing pipelines). Pipeline alignments would need to be identified and easements obtained. These effects would result from the grading, trenching, and pipeline installation actions. Pipeline construction through urban areas typically would occur within already existing easements or within roadways. This construction would be visually adverse but less than significant (Class III). Those areas of greatest potential for significant impact would be nonurban areas and areas of high visual sensitivity. These may include designated scenic corridors and vistas, unique urban and nonurban open space, preserve areas, or areas containing visually interesting landform and/or vegetation covers that could be lost. In such areas, landforms may not be restorable to previous conditions and residual impacts would result from the scarring of the landscape. In these areas, visual impacts are considered to be significant and adverse (Class I or II).

Mitigation Measures for VR-5:

VR-5. Mitigation includes avoidance of pipeline alignments through sensitive scenic areas, unique landforms, and areas where vegetation would be lost or unable to be restored. If avoidance is not possible, then methods to minimize losses need to be evaluated. No mitigation is available to reduce the impacts of new terminals.

Rationale for Mitigation: The goal of the mitigation is to minimize, to the greatest extent feasible, visual impacts caused by pipeline installation.

Residual Impacts: Class I impacts may remain if the vista, landform, or vegetative cover is permanently affected by construction. Class I impacts would likely remain if the new/modified terminals would be deemed an unavoidable impact per a project-specific CEQA review.

4.9.6 Cumulative Projects Impacts Analysis

Impact CUM-VR-1: Visual Effects of Cumulative Tanker Activities

The Bay area vessel movements comprise a large number of tankers, ships, barges, sport and other vessels that are everyday occurrences in the visual environment. Low level lighting associated with marine terminals does not result in light or glare impacts. Expectations of the public with respect to cumulative tanker operations associated with routine operations are considered to be an adverse, but less than significant impact (Class III).

Tanker movements throughout Carquinez Strait and into Suisun Bay are part of an established pattern of activity that has occurred and will continue to occur over the next 20 years. The Shell Terminal and related tanker movements through the Bay and into Carquinez Strait and Suisun Bay contribute to that activity. These vessel movements are an acceptable visual action. Low level lighting from marine terminals typically is distant from receptors and does not result in light and glare impacts to nearby land uses. The expectations of the public of the cumulative environment would not result in significant changes and impacts are considered to be adverse, but less than significant (Class III).

CUM-VR-1: No mitigation is required.

Impact CUM-VR-2: Visual Effect from Accidental Release of Oil

Spills from multiple sources that would overlap in time (either the spill occurrence or cleanup operation) ~~is~~ are unlikely, however, such incidents would result in significant adverse visual impacts (Class I or II).

A spill can begin as a very localized incident but can have the potential to spread over a very large area. While multiple spills are unlikely, if more than one spill would occur within a very short timeframe within the Carquinez Strait, Suisun Bay, San Pablo Bay or along the outer coast, significant adverse visual impacts (Class I or II) could result, depending on the adequacy of first response containment and clean-up efforts.

Mitigation Measures for CUM-VR-2:

CUM-VR-2. Mitigation for Shell includes adherence to those measures presented in Operational Safety/Risk of Accidents and Biological Resources.

Rationale for mitigation: Those measures provide improved oil spill capabilities, oil spill containment measures and protection of resources. With implementation of those measures the risk to the visual environment can be reduced to less than significant for small spills. Each marine terminal within the Bay Area is also responsible for minimizing spill risks at their facility.

Residual Impacts: Impacts to the cumulative visual environment could remain significant (Class-I) for large spills.

A summary of the impacts and mitigation measures is provided in Table 4.9-1.

Table 4.9-1. Summary of Visual Resources Impacts and Mitigation Measures

Impact	Mitigation Measures
VR-1: Visual Effects from Routine Operations Over the 30-Year Lease Period	No mitigation required.
VR-2: Visual Effects from Accidental Releases of Oil At or Near the Shell Terminal	VR-2: Apply <u>Mitigation Measures</u> from Operational Safety/Risk of Accidents and Biological Resources.
VR-3: Visual Effects of Oil Spills from Vessels in Transit	VR-3: Mitigation measures for accidents in the shipping lanes would not be Shell's responsibility, but would fall to the vessel operator/owner. Shell shall implement MM OS-7a and OS-7b.
VR-4: No Project Alternative	No mitigation is required.
VR-5: Full Throughput Alternative	VR-5: Avoidance of pipeline alignments through sensitive scenic areas, unique landforms, and areas where vegetation would be lost or unrestorable. If avoidance is not possible, then methods to minimize losses need to be evaluated. No mitigation is available to reduce the impacts of new terminals.
CUM-VR-1: Visual Effects of Cumulative Tanker Activities	CUM-VR-1: No mitigation required.
CUM-VR-2: Visual Effect from Accidental Release of Oil	CUM-VR-2: Adherence to MMs presented in Operational Safety/Risk of Accidents and Biological Resources.

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